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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/529,266	BLIN ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Kevin S. Orwig	1611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 30 May 2008 and 02 October 2008.
- 2a) This action is **FINAL**.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 77-174 is/are pending in the application.
- 4a) Of the above claim(s) 165-174 is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 77-164 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____ .                                    |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>5/9/07, 1/23/08</u> .   | 6) <input type="checkbox"/> Other: _____ .                        |

## **DETAILED ACTION**

### ***Status of the Claims***

Claims 77-174 are currently pending. Claims 77-164 are the subject of this Office Action. This is the first Office Action on the merits of the claims. Non-elected claims 165-174 are withdrawn from consideration.

### ***Election/Restrictions***

1. Applicants' election with traverse of Group I (claims 77-164) in the reply filed on May 30, 2008 is acknowledged. The traversal is on the ground(s) that the prior art cited to break unity of invention does not read on the technical feature of the invention. This traversal is not found to be persuasive because there are three inventions, one drawn to a cosmetic composition, one drawn to a multi-compartment kit, and one drawn to a cosmetic process. Groups I and II are drawn to a different statutory category of invention (a composition of matter) than Group III, which are drawn to a method. The inventions are not so closely related as to depend absolutely upon one another and are therefore patentably distinct.
2. Applicants allege that U.S. Patent 6,153,206 (ANTON) does not read on the technical feature of the invention, but do not specifically point out how Anton fails to do so. As pointed out in the restriction requirement dated May 1, 2008, the common technical feature between the groups is a cosmetic composition, which the disclosure of Anton reads on as indicated in the restriction requirement. Since no further arguments have been set forth by applicant at this time, the traversal is not persuasive for the

withdrawal of the restriction requirement. The requirement is still deemed proper and is therefore made FINAL.

In the reply of May 30, 2008, applicants elected the following species:

Monomer structures: isobornyl (methyl)acrylate and isobutyl acrylate

Additional monomer: acrylic acid

Form of the composition: paste form

It is noted that it is conventional in the art to indicate an *optional* methyl group with parentheses in the name. For example, see Kantner (used in the following rejections) at paragraph [0011]. Thus, the elected species encompasses both isobornyl methacrylate and isobornyl acrylate.

In response to applicant's election, Group II (claims 165-173), and Group III (claim 174) are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on May 30, 2008.

### ***Priority***

Acknowledgment is made of applicant's claim to foreign priority under 35 U.S.C. 119(a)-(d). The certified copies of the French applications were filed with the USPTO on Mar. 25, 2005.

The earliest effective U.S. filing date afforded the instantly claimed invention has been determined to be Sep. 26, 2003, the filing date of PCT application PCT/FR03/02847 to which the instant national stage 371 application claims priority.

Upon filing of certified translations of the French applications, which provide adequate enablement and written description of the claimed subject matter, the instant application would be granted an effective filing date of 9/26/2002.

***Information Disclosure Statement***

References lined-through on the information disclosure statement(s) were not considered because they were not provided or were not provided in English.

***Claim Rejections - 35 USC § 112 (1<sup>st</sup> paragraph)***

**Scope of Enablement**

**Claims 77, 82, 108, 115, and 117 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement.** The claims contain subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Specifically, at least some embodiments of the scope of claim 117 are not possible. The specification, while being enabling for combinations of the monomers recited in claim 117, does not reasonably provide enablement for the embodiment wherein one of the recited monomers is used to make a homopolymer.

In this regard, the application disclosure and claims have been compared per the factors indicated in the decision *In re Wands*, 8 USPQ 2d 1400 (Fed. Cir., 1988) as to undue experimentation. The factors include:

- 1) the nature of the invention;
- 2) the scope or breadth of the claims;
- 3) the state of the prior art;
- 4) the predictability or unpredictability of the art;
- 5) the relative skill of those skilled in the art;
- 6) the presence or absence of working examples;
- 7) the amount of direction or guidance presented and,
- 8) the quantity of experimentation necessary.

The *relevant* factors are addressed below on the basis of comparison of the disclosure, the claims and the state of the prior art in the assessment of undue experimentation.

**Scope or breadth of the claims:** Instant claim 117 recites:

117. (New) The cosmetic composition according to Claim 115, wherein the block with a T<sub>g</sub> of between 20 and 40 °C is totally or partially derived from at least one monomer chosen from methyl methacrylate, isobornyl acrylate and methacrylate, butyl acrylate and 2-ethylhexyl acrylate, and mixtures thereof.

Since the language "at least one" encompasses one, the scope of this claim encompasses the embodiment wherein one monomer is used to totally derive the block. This is equivalent to forming this block from a homopolymer of one of the recited monomers. Claim 115, from which claim 117 depends requires that a homopolymer prepared from the at least one monomer have a T<sub>g</sub> that is between 20°C and 40 °C. However, none of the recited monomers would result in homopolymers having a T<sub>g</sub> within this range (methyl methacrylate T<sub>g</sub> = 115 °C; isobornyl methacrylate T<sub>g</sub> = 110 °C; isobornyl acrylate T<sub>g</sub> = 94 °C; butyl acrylate T<sub>g</sub> = -54 °C; 2-ethylhexyl acrylate T<sub>g</sub> = -50

°C). See Table I: Thermal Transitions of Homopolymers, evidentiary reference. The T<sub>g</sub> is an inherent property of a compound (or homopolymer of a given monomer). Thus, it is not possible to produce homopolymers of any of these monomers having a T<sub>g</sub> in the required range.

**State of the prior art:** There are no examples known in the prior art where homopolymers of any of the monomers recited in claim 117 have a T<sub>g</sub> between 20°C and 40 °C.

**Presence or absence of working examples:** No working examples of polymers comprising homopolymeric blocks of any one of the monomers recited in claim 117 were provided in which said homopolymeric blocks have a T<sub>g</sub> between 20°C and 40 °C.

**Amount of guidance or direction provided:** There is no guidance presented in the specification as to how one would go about producing a homopolymer of any one of the monomers in claim 117 having a T<sub>g</sub> between 20°C and 40 °C.

**Quantity of experimentation required to make and use the invention:** Absent guidance as to how the skilled artisan would go about altering the inherent physical properties of such a homopolymer, one of ordinary skill in the art would have no alternative recourse but to undertake an exhaustive, and, thus, unduly burdensome search of methods to produce the claimed invention.

***Claim Rejections - 35 USC § 112 (2<sup>nd</sup> Paragraph)***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

**Claims 77-164 are rejected under 35 U.S.C. 112, second paragraph, as**

**being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

Claims 77, 90, 93, 94 recite the "mean gloss at 20°..." and claims 91, 92 recite the "mean gloss at 60°..." The units of degrees are undefined. Is this limitation a temperature? If so, is it in units of °C, °F, °K or some other temperature scale? Alternatively, this limitation could be referring to an angle. This term is not defined by the claim, the specification does not provide a sufficient standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. It is noted that the portion of the specification dealing with the term "mean gloss" does not correct this ambiguity. For example paragraph [0018] states that the deposit is left to dry for 24 hours at a temperature of 30° C., and the gloss at 20° is then measured. It is noted that measurement of "mean gloss" in this way is not an industry standard. As such it would not be readily apparent to one of ordinary skill in the art that the recitation of 20° is intended to be a temperature. Thus, one of ordinary skill in the art would not know how the mean gloss must be measured to meet this limitation. Since one of ordinary skill in the art could not be expected to make a reasonable distinction in the absence of further definitions and/or guidance in the specification, the metes and bounds of these claims are indefinite.

If applicants contend that the recitation of 20° is intended to be, for example, a temperature, applicants must show that one skilled in the art would have understood that this choice, and not another, was surely intended.

Claims 104 and 105, and depended claims 106 and 107 recite the limitation "weight of active material of polymer relative to the total weight of the composition". It is unclear what the active material of the polymer is. For example, claim 104 recites "from 0.1% to 60% by weight of active material of polymer relative to the total weight of the composition." Is the active material of the polymer a part of the polymer? If so, what part? Alternatively, is the active material of the polymer simply the weight of the polymer itself? This limitation is not defined by the claim, the specification does not provide a sufficient standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Thus, one of ordinary skill in the art would not know what portion of the polymer constitutes the active material of the polymer. Since one of ordinary skill in the art could not be expected to make a reasonable distinction in the absence of further definitions and/or guidance in the specification, the metes and bounds of these claims are indefinite.

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 77-80, 82-84, 86-94, 98-103, and 159-164 are rejected under 35 U.S.C. 102(b) as being anticipated by MOUGIN (U.S. 2002/0115780; Published Aug. 22, 2002; Reference #7 on IDS dated Jul. 19, 2006).**

1. Mougin discloses film-forming block ethylenic copolymers comprising at least one rigid block having a glass transition temperature ( $T_g$ ) greater than or equal to 20°C and at least one flexible block having a  $T_g$  of less than 20°C (abstract; claim 1). These copolymers are present in a cosmetically acceptable organic liquid medium (e.g. an oil) (paragraphs [0099] and [0100]) and are useful in a variety of cosmetic compositions (paragraph [0130] and [0131]). Mougin teaches that these polymers increase the staying power of make-up compositions (paragraph [0007]) and produce cosmetics that do not wear and remain glossy (Example 4). Furthermore, Mougin teaches monomers for use in the blocks of the copolymer that are substantially identical to those claimed in the instant application (paragraphs [0047]-[0097]). The number average molar mass is 51,900 and the weight-average molar mass is 114,500 (paragraph [0143]).
2. Mougin does not disclose the mean gloss or the transfer index of the compositions. However, it is noted that "transfer index" is a measurement of the transfer resistance of the composition as evidenced by paragraphs [0036]-[0037] of the instant specification. Since the compositions of Mougin provide high transfer resistance (i.e. staying power and wear resistance) it is reasonable that the cosmetic compositions taught by Mougin (e.g. Example 4) would meet the limitations of mean gloss and transfer index if measured under the highly specialized conditions recited in claim 77.

3. The U.S. Patent Office is not equipped with analytical instruments to test prior art compositions for the infinite number of ways that a subsequent applicant may present previously unmeasured characteristics. When, as here, the prior art appears to contain the exact same ingredients and applicant's own disclosure supports the suitability of the prior art composition as the inventive composition component, the burden is properly shifted to applicant to show otherwise.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

**Claims 77-80, 82-84, 86-94, 98-141, 144-147, and 150-164 are rejected under 35 U.S.C. 103(a) as being unpatentable over ANTON (U.S. Patent No. 6,153,206; Issued Nov. 28, 2000; Reference # 35 on IDS dated Jul. 19, 2006) in view of KANTNER (U.S. 2002/0076390; Filed Jun. 22, 2001).**

4. Anton discloses cosmetic compositions comprising a non-elastomeric film-forming synthetic ethylenic block polymer in a cosmetically acceptable liquid medium (e.g. an oil) (abstract; column 2, lines 9-23 and 56; column 6, lines 7-10; claim 1). Anton teaches that one repeating unit (i.e. block) is preferably constructed from isobornyl methacrylate (elected species) (column 4, lines 5-27; Example 1), and has a glass transition temperature,  $T_g$  of 76-120 °C. Anton also teaches that a second block of the polymer is constructed from monomers, which when polymerized have a glass transition temperature,  $T_g$  of -10 to 75 °C. Anton teaches that the oil component is a volatile or nonvolatile oil (i.e. an organic liquid medium) (column 6, lines 8-10 and 17-19). Anton teaches that the compositions are useful as shiny, transfer resistant cosmetics (column 1, lines 60-67; Example 1).

5. Anton further teaches that the polymer of the invention may be a copolymer, a terpolymer (i.e. a polymer of three different monomers), or have any number of different units in addition to the first and second repeat units (i.e. blocks) (column 2, lines 58-62; column 4, lines 28-60). In particular, Anton teaches block terpolymers and teaches that the repeating units are monomer units which are present more than one time in the polymer chain and can be present in either repetitive sequence or in random sequence with other monomer units (column 3, lines 21-24). Anton presents a number of suitable

polymer architectures (table in column 4). Anton also emphasizes the importance of having "hard" and "soft" portions (i.e. portions having different glass transition temperatures,  $T_g$ ) in the polymer to maintain both flexibility and shine of the composition (column 2, lines 51-58).

6. Anton does not measure the mean gloss or transfer index of the compositions. While Anton does not measure these properties of the compositions under the highly specialized conditions described in the instant specification (paragraphs [0017]-[0036], it is an object of Anton's cosmetic compositions to provide a shiny (i.e. glossy) finish and high transfer resistance (column 1, line 60 to column 2, line 5; Example 1). Thus, it is reasonable that the shiny, transfer resistant compositions taught by Anton (e.g. Example 1) would fulfill this requirement, and it would certainly have been *prima facie* obvious to one of ordinary skill in the art to include the polymers taught by Anton in an amount sufficient to achieve these results, reading on claims 87-94.

7. Nonetheless, while Anton teaches a variety of monomers suitable for the block having a  $T_g$  of -10 to 75 °C, Anton does not teach the instantly elected species of isobutyl acrylate.

8. Kantner discloses cosmetic compositions containing non-elastomeric copolymers comprising a first (meth)acrylate ester monomer and a second (meth)acrylate, the various monomers having differing  $T_g$  values (abstract; paragraphs [0007] and [0010]). Kantner teaches that isobornyl (meth)acrylate (elected species) is a suitable polymer for one block and that isobutyl acrylate (elected species) is a suitable polymer for the other block (paragraphs [0017] and [0018]). Kantner teaches that the compositions provide

improved gloss and transfer resistance to cosmetics (paragraph [0009]). Kantner teaches that the compositions are advantageous in cosmetics such as, *inter alia*, nail polish and lipstick since the compositions because of their ability to form hydrophobic films that impart water resistance and transfer resistance (paragraph [0013]).

9. In light of these teachings, it would have been *prima facie* obvious to one of ordinary skill in the art at the time of the invention to substitute isobutyl acrylate for another monomer having a low  $T_g$  in the copolymers taught by Anton to prepare a copolymer with improved water and transfer resistance. One would have been motivated to do so since Kantner teaches a set of first monomers (paragraph [0017]) that overlaps with that of Anton's first repeat unit (column 3, lines 56-65; Table in column 4). Kantner also teaches a set of second monomers (paragraph [0019]) that overlaps with Anton's second repeat unit (column 3, line 66 to column 4, line 4; Table in column 4). Since the copolymers of Kantner are useful for the very same purpose as those of Anton (i.e. producing cosmetics with improved gloss and transfer resistance), the ordinary artisan would recognize the functional equivalency between the monomer sets of Anton and Kantner, and it would have been obvious to try any combination of these monomers.

10. Furthermore, since Anton teaches block terpolymers and teaches various configurations of the blocks in the polymers (column 3, lines 21-24; table in column 4) including homopolymeric blocks (column 4, lines 28-60), it would have been obvious to an ordinary artisan to produce a polymer having homopolymeric blocks of any of the monomers taught by Anton or Kantner in any of the configurations taught by Anton.

Thus, the combined teachings of Anton and Kantner render claims 77-79, 82-84, 87-94, 108-114, 118-122, 125-129, 132-135, 138-141, 144-147, and 151-156 obvious.

11. Regarding claim 80, Anton does not disclose the solubility of the block polymers, but teaches the use of the substantially the same monomer components of the block polymers as those instantly claimed. Additionally, Kantner teaches that the polymers of the invention are insoluble in a water system (paragraph [0011]). Therefore, it is reasonable that the polymers taught by the combination of Anton and Kantner will not be soluble at an active material amount of at least 1% by weight in water, and thus meet the limitations of claim 80.

12. Regarding claim 86, Anton does not disclose the compatibility of the various polymer blocks, and does not disclose the solubility of the blocks in the major organic liquid medium of the composition, which is how mutual incompatibility is defined in the instant specification (paragraph [0090]). Nonetheless, since the combination of Anton and Kantner teach an identical polymer composition to that instantly claimed, including the same types of monomers, and blocks thereof, it is reasonable that these blocks are mutually incompatible as defined in the instant specification. Thus, claim 86 is rendered obvious by Anton and Kantner.

13. Regarding claims 98-103, Anton teaches that the molecular weight average of the polymer is from 5,000 to 300,000, but is preferably from 5,000 to 50,000 (column 5, lines 23-28). Anton exemplifies a composition comprising a polymer having a molecular weight of 27,100 (Example 1), reading on instant claims 98-103.

14. Regarding claims 104 and 105, the limitation "weight of active material of polymer relative to the total weight of the composition" has been interpreted to mean weight of the polymer relative to the total weight of the composition for the purposes of the following rejection. Anton teaches that the preferred compositions comprise from 3-30% of the copolymer (column 11, line 10), and embodies the copolymer in the range of 19-20% by weight of the composition (Example 1), reading on claims 104 and 105.

15. As discussed above, Anton teaches that the oil component is a volatile or nonvolatile oil, including, *inter alia*, hydrogenated polyisobutene (column 7, line 44), phenyl trimethicone (column 7, line 60), and caprylic/capric triglycerides (column 7, line 31), all of which are "glossy oils" as defined in paragraphs [0042]-[0056] of the instant specification, reading on claims 106 and 107.

16. Anton teaches that the first repeat unit has a  $T_g$  of about -10-75°C and the second repeat unit has a  $T_g$  of about 76-120°C (abstract; column 4, line 62 to column 5, line 1). Specifically, Anton embodies a polymer comprising blocks of isobornyl methacrylate ( $T_g$  = 110°C) and isobutyl methacrylate ( $T_g$  = 53°C) (Example 1) and teaches that a variety of other monomers are useful in the polymers, for instance n-butylmethacrylate ( $T_g$  = 20°C, which has a  $T_g$  between 20°C and 40° as defined in paragraph [0152] of the instant specification), hexyl methacrylate ( $T_g$  = -5°C) (column 3, line 56 to column 4, line 38; column 5, lines 33-54, see the second table in column 5). Furthermore, Anton teaches that preferable methacrylate esters useful for the first monomer are those obtained by esterification of methacrylic acid with an aliphatic alcohol of 2 to 30 carbon atoms (column 3, lines 57-61). Thus, it would be obvious to

an ordinary artisan to use any combination of these monomers rendering claims 115-117 obvious.

17. Anton teaches that relative to the polymer, the portions of the first and second repeat units can vary from 2-99% by weight of the first repeat unit to 1-98% by weight of the second repeat unit and vice versa (column 5, lines 3-32). Thus, it would be obvious to an ordinary artisan to use any percentage within this range for each of the blocks. As discussed above, both Anton teaches that manipulating the percentages of the blocks alters the properties of the final polymer. Thus, the skilled artisan would be motivated to do so to optimize the properties of the polymer for a particular formulation. Therefore, claims 123, 124, 130, 131, 136, 137, 142, 143, 148, and 149 are obvious over the combination of Anton and Kantner.

18. Regarding claims 150-156, it is noted that Applicants have elected the species acrylic acid. Since acrylic acid does not contain a silicon atom, it is therefore presumed that acrylic acid is a hydrophilic monomer. Anton teaches a variety of monomers useful for the various polymer blocks of the polymer (column 3, line 56 to column 4, line 27; second table in column 5). As stated above, it would be *prima facie* obvious to an ordinary artisan to use any combination of these monomers as defined by the teachings of Anton. Furthermore, as discussed above, Anton teaches block terpolymers and teaches that the repeating units are monomer units which are present more than one time in the polymer chain and can be present in either repetitive sequence or in random sequence *with other monomer units* (column 3, lines 21-24). Furthermore, Anton describes polymer architectures comprising at least three different monomers (column

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4, lines 28-60) and teaches that the final polymer may contain, in addition to the first and second repeat units, other monomeric units such as ethylenically unsaturated monomer units and silicon repeat units. Thus, it would have been *prima facie* obvious to an ordinary artisan at the time of the invention to include such an additional monomer (in addition to isobornyl methacrylate and, a second monomer having a lower  $T_g$ ), in the polymer as taught by Anton. While Anton teaches methacrylic acid and esters thereof, acrylic acid itself is not disclosed.

19. However, Kantner teaches that the copolymer may include other monomers similar to the first and second monomers or can include an optional third monomer that has different properties than the first two. For example, the third monomer can be hydrophilic (paragraphs [0020]-[0023]). Kantner teaches that these additional monomers can improve performance or reduce cost (paragraph [0023]). Moreover, Kantner teaches that blends of two or more copolymers may be used (paragraphs [0024] and [0025]) and that this can provide a composition with improved film forming characteristics. Kantner teaches that acrylic acid is a suitable hydrophilic monomer (paragraph [0022]). Thus, it would have been *prima facie* obvious to an ordinary artisan to produce a polymer having homopolymeric blocks of any of the monomers taught by Anton, as well as the additional monomers taught by Kantner, such as acrylic acid, rendering claims 150-156 obvious.

20. Regarding claim 157, Anton does not disclose the weight % of the additional monomer relative to the first and/or second blocks.

21. However, Kantner teaches that the additional monomer can constitute up to about 20% weight of the total amount of monomer used (paragraph [0021]). Kantner also teaches that this amount can be adjusted (for example, used at higher concentrations) depending on the specific additional monomer employed (paragraph [0022]). Thus, it would have been well within the skill of the ordinary artisan to adjust the amount of the additional monomer based on the teachings of Anton (see upper table in column 5) and Kantner. One would be motivated to adjust the amount of the additional monomer based on the teachings of Kantner, which indicate that other monomers may be incorporated to improve performance or reduce cost, as would be recognized by the skilled artisan. Thus, an ordinary artisan would be motivated to include an additional monomer to for a variety of reasons, for instance to increase the hydrophilicity of the copolymer, or reduce the cost associated with its production as taught by Kantner (paragraph [0023]). Thus, claim 157 is obvious over Anton and Kantner.

22. Both Anton (column 9, lines 17-27; Example 1, wherein D&C and FD&C lakes are dyestuffs) and Kantner (paragraph [0030]) teach that the cosmetic compositions include other cosmetic ingredients including pigments and dyes, reading on claim 158.

23. Anton teaches that the cosmetic compositions of the invention are for application to the skin (i.e. keratin material) or lips and may be in the form of an anhydrous stick or a composition that has a consistency such that it can be molded into the form of a stick (column 2, lines 26-41). One of ordinary skill in the art would recognize that such moldable compositions can be pastes, as is typical of anhydrous lipsticks, for example.

Furthermore, Kantner teaches that the compositions are useful for, *inter alia*, mascara, eyeliner, and lipstick (paragraph [0013]). In light of these teachings, it would have been *prima facie* obvious to an ordinary artisan to produce the cosmetic compositions of Anton in the form of pastes. One would be motivated to produce a paste form since the preferred embodiment of Anton is a lipstick (i.e. an anhydrous paste). Thus, claims 159-164 are obvious over Anton and Kantner.

A reference is good not only for what it teaches by direct anticipation but also for what one of ordinary skill in the art might reasonably infer from the teachings. (*In re Opprecht* 12 USPQ 2d 1235, 1236 (Fed Cir. 1989); *In re Bode* 193 USPQ 12 (CCPA) 1976). In light of the forgoing discussion, the examiner concludes that the subject matter defined by the instant claims would have been obvious within the meaning of 35 USC 103(a). From the teachings of the references, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention. Therefore, in the absence of evidence to the contrary, the invention as a whole was *prima facie* obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references.

**Claims 77, 81, and 85, are rejected under 35 U.S.C. 103(a) as being unpatentable over Anton in view of Kantner and further in view of GALLEGUILLOS (U.S. 6,410,005; Issued Jun. 25, 2002).**

24. The teachings of Anton and Kantner are presented above. As discussed, Anton teaches that the polymer of the invention may be a copolymer, a terpolymer (i.e. a polymer of three different monomers), or have any number of different units in addition

to the first and second repeat units (i.e. blocks) (column 2, lines 58-62; column 4, lines 28-60). In particular, Anton teaches block terpolymers and teaches that the repeating units are monomer units which are present more than one time in the polymer chain and can be present in either repetitive sequence or in random sequence with other monomer units (column 3, lines 21-24). Anton also emphasizes the importance of having "hard" and "soft" portions (i.e. portions having different glass transition temperatures,  $T_g$ ) in the polymer to maintain both flexibility and shine of the composition (column 2, lines 51-58). While suggesting that blocks having the structure of the intermediate blocks in claims 81 and 85 are possible, Anton does not embody the instantly claimed architecture with sufficient specificity to be anticipatory and Kantner does not disclose this type of polymer configuration.

25. However, Galleguillos discloses AB block copolymers for cosmetic use on keratin substrates (column 1, lines 12-14) comprising soft hydrophobic and hard hydrophilic blocks with two or more distinct glass transition temperatures, represented by Structures 1 and 2 (column 4, lines 44-65). Specifically, Galleguillos discloses a process of polymerizing a polyfunctional monomer X within the scope of the instant intermediate block constituent (see column 4, structures 1 and 2) with a first ethylenically unsaturated monomer(s) to form an A block, and subsequently polymerizing a second ethylenically unsaturated monomer(s) containing at least one carboxylic acid group with the A block to form a B block, and the resultant block copolymer (column 3, lines 53-60; column 4, lines 18-43; column 5, lines 2- 4; column 6, line 27 to column 7, line 57). Thus, a copolymer containing blocks of -(B)<sub>p</sub>-X-(B)<sub>q</sub>-, and

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-(A)<sub>n</sub>-A-X-A-(A)<sub>n</sub>- is formed, wherein X is a multifunctional monomer that links the A and B blocks. The linkage of X-X reads on the instant intermediate block, wherein X is also a constituent monomer of the A and B blocks in -(B)<sub>p</sub>-X-(B)<sub>q</sub>-, and -(A)<sub>n</sub>-A-X-A-(A)<sub>n</sub>-.

Absent of specific compositional and architectural details claimed for the instant intermediate block, prior art -B-X-X-A- linkages in structures 1 and 2 fall within the scope of the instant intermediate block as both blocks A and B contain at least one constituent X, as defined in the present claims.

26. Galleguillos teaches the weight percent of each of the monomers in the mixture can vary, depending on the desired properties of the final copolymer product and teaches that these properties can be tailored by varying the composition and length of the blocks (column 4, lines 38-39; column 13, lines 1-2). Galleguillos specifically discloses using varying proportion of mixtures of A and B monomers so as to achieve the desired balance of the resultant block polymer properties (column 12, lines 12-15; column 13, lines 1- 8).

27. In light of these teachings, it would have been *prima facie* obvious to one of ordinary skill in the art at the time of the invention to prepare a polymer arranged with a first block and a second block connected by an intermediate block comprising both types of monomers, to provide a suitable polymer compound. One would have been motivated to do so since the teaching of Anton suggests such an arrangement, and since one of ordinary skill in the art would recognize that including a block comprising monomers from the "hard" and "soft" portions provides an additional means (besides the weight % of each block) to manipulate the overall properties of the polymer, as

taught by Galleguillos. Further, it is well within the skill of ordinary artisan to select the appropriate properties of a copolymer for a given formulation. Therefore if an artisan wanted to produce a polymer with both high flexibility and shine (i.e. gloss) qualities, one would have been motivated to arrange the "hard" and "soft" polymer blocks such that they were connected by an intermediate block as suggested by Anton and taught by Galleguillos. Thus, the combination of Anton and Galleguillos renders claim 81 obvious.

28. Regarding claim 85, it is reasonable that a block comprising monomers from each of a "hard" and "soft" block will have a  $T_g$  between these two extremes, as would be recognized by the ordinary artisan. For example, Anton teaches that the overall  $T_g$  of the polymer lies between that of the isolated "hard" and "soft" segments (abstract; column 2, lines 13-23). Thus, given the teachings of Anton, claim 85 is rendered obvious over Anton, Kantner, and Galleguillos.

A reference is good not only for what it teaches by direct anticipation but also for what one of ordinary skill in the art might reasonably infer from the teachings. (*In re Opprecht* 12 USPQ 2d 1235, 1236 (Fed Cir. 1989); *In re Bode* 193 USPQ 12 (CCPA) 1976). In light of the forgoing discussion, the examiner concludes that the subject matter defined by the instant claims would have been obvious within the meaning of 35 USC 103(a). From the teachings of the references, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention. Therefore, in the absence of evidence to the contrary, the invention

as a whole was *prima facie* obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references.

**Claims 77 and 95-97 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anton in view of Kantner and further in view of RAETHER (U.S. 2004/0014872; Filed Jun. 13, 2001; Reference #13 on IDS dated Jul. 19, 2006).**

29. The teachings of Anton and Kantner are presented above. Regarding claims 95-97, neither Anton nor Kantner disclose the polydispersity of the polymers of their inventions. However, Anton clearly teaches that a molecular weight between 5,000 to 50,000 is advantageous (column 5, lines 23-28). Thus, it is the examiner's position that it would have been obvious and fully within the purview of one having ordinary skill in the art to control the optimum molecular weight, polydispersity, polymer composition and architectures of the resultant block copolymer product by varying experimental parameters such as source, amount, and solvation of catalyst/initiators/control agents, polymerization temperature and time, etc., as taught by the references referred to by Anton (column 5, line 64 to column 6, line 6).

30. The ordinary artisan would have been motivated to select a polydispersity in the range of 3.0 because Raether discloses a composition comprising block polymers useful for cosmetics (abstract; paragraph [0092]; claim 13) and teaches that a preferred polydispersity for such polymers is between about 3-5 (paragraph [0019]) for polymers comprising multiple segments, such as those taught by Anton and Kantner. Thus, the combined teachings of Anton, Kantner, and Raether render claims 95-97 obvious.

A reference is good not only for what it teaches by direct anticipation but also for what one of ordinary skill in the art might reasonably infer from the teachings. (*In re Opprecht* 12 USPQ 2d 1235, 1236 (Fed Cir. 1989); *In re Bode* 193 USPQ 12 (CCPA) 1976). In light of the forgoing discussion, the examiner concludes that the subject matter defined by the instant claims would have been obvious within the meaning of 35 USC 103(a). From the teachings of the references, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention. Therefore, in the absence of evidence to the contrary, the invention as a whole was *prima facie* obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references.

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

U.S. Patent Application No. 10/528,698

Claims 77-164 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 65-136 of copending Application No. 10/529,698. Although the conflicting claims are not identical, they are not patentably distinct from each other because the scope of the '698 claims renders obvious that of the instant claims. The difference between the two claim sets is that the '698 claims do not recite a mean gloss or transfer index of the block polymer. However, the '698 claims recite that the polymer can form a resistive index of greater than or equal to 80%. Both of these limitations are drawn to the transfer resistance of the composition, and indicate that each is to resist transfer. Since each application recites the same monomer components and architecture, in the absence of evidence to the contrary, it is reasonable that the compositions claimed in the '698 application would meet the instant limitations and vice versa. It is noted that '698 claim 96 recites the elected species of isobornyl (meth)acrylate, and claim 100 encompasses the instantly elected species of isobutyl acrylate, and claim 110 recites acrylic acid, the elected species for the additional monomer. Thus, the scope of the two claim sets is substantially identical, and the entire scope of the instant claims is rendered obvious over the '698 claims.

As set forth above, claims 77-164 are directed to an invention not patentably distinct from claims 78-159 of commonly assigned 10/528,698. Specifically, see above.

The U.S. Patent and Trademark Office normally will not institute an interference between applications or a patent and an application of common ownership (see MPEP Chapter 2300). Commonly assigned 10/528,698, discussed above, would form the basis for a rejection of the noted claims under 35 U.S.C. 103(a) if the commonly assigned case qualifies as prior art under 35 U.S.C. 102(e), (f) or (g) and the conflicting inventions were not commonly owned at the time the invention in this application was made. In order for the examiner to resolve this issue, the assignee can, under 35 U.S.C. 103(c) and 37 CFR 1.78(c), either show that the conflicting inventions were commonly owned at the time the invention in this application was made, or name the prior inventor of the conflicting subject matter.

A showing that the inventions were commonly owned at the time the invention in this application was made will preclude a rejection under 35 U.S.C. 103(a) based upon the commonly assigned case as a reference under 35 U.S.C. 102(f) or (g), or 35 U.S.C. 102(e) for applications pending on or after December 10, 2004.

U.S. Patent Application No. 10/528,699

Claims 77-164 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 78-159 of copending Application No. 10/529,699. Although the conflicting claims are not identical, they are not patentably distinct from each other because the scope of the '699 claims renders obvious that of the instant claims. The difference between the two claim sets is that the '699 claims do not recite a transfer index of the block polymer. However, the transfer index the composition would be optimized by the ordinary artisan. Furthermore,

each application recites the same monomer components and architecture. Thus, in the absence of evidence to the contrary, it is reasonable that the compositions claimed in the '699 application would meet the instant limitations and vice versa. It is noted that '699 claim 91 recites the elected species of isobornyl (meth)acrylate, and claim 125 encompasses the instantly elected species of isobutyl acrylate, and claim 132 recites acrylic acid, the elected species for the additional monomer. Thus, the scope of the two claim sets is substantially identical, and the entire scope of the instant claims is rendered obvious over the '699 claims.

As set forth above, claims 77-164 are directed to an invention not patentably distinct from claims 78-159 of commonly assigned 10/528,699.

The U.S. Patent and Trademark Office normally will not institute an interference between applications or a patent and an application of common ownership (see MPEP Chapter 2300). Commonly assigned 10/528,699, discussed above, would form the basis for a rejection of the noted claims under 35 U.S.C. 103(a) if the commonly assigned case qualifies as prior art under 35 U.S.C. 102(e), (f) or (g) and the conflicting inventions were not commonly owned at the time the invention in this application was made. In order for the examiner to resolve this issue, the assignee can, under 35 U.S.C. 103(c) and 37 CFR 1.78(c), either show that the conflicting inventions were commonly owned at the time the invention in this application was made, or name the prior inventor of the conflicting subject matter.

A showing that the inventions were commonly owned at the time the invention in this application was made will preclude a rejection under 35 U.S.C. 103(a) based upon

the commonly assigned case as a reference under 35 U.S.C. 102(f) or (g), or 35 U.S.C. 102(e) for applications pending on or after December 10, 2004.

U.S. Patent Application No. 10/529,264

Claims 77-164 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-56 of copending Application No. 10/528,264. Although the conflicting claims are not identical, they are not patentably distinct from each other because the scope of the '264 claims renders obvious that of the instant claims. The difference between the two claim sets is that the '264 claims do not recite a mean gloss. However, the mean gloss would be optimized by the skilled artisan preparing lip or eye makeup products comprising the instantly claimed polymers. Furthermore, since the mean gloss is an inherent property of a given polymer and since each application recites the same monomer components and polymer architecture, in the absence of evidence to the contrary, it is reasonable that the compositions claimed in the '264 application would meet the mean gloss limitations and vice versa. It is noted that '264 claim 23 recites the elected species of isobornyl (meth)acrylate, claim 27 encompasses the instantly elected species of isobutyl acrylate, and claim 36 recites acrylic acid, the elected species for the additional monomer. Thus, the scope of the two claim sets is substantially identical, and the entire scope of the instant claims is rendered obvious over the '264 claims.

As set forth above, claims 77-164 are directed to an invention not patentably distinct from claims 1-56 of commonly assigned 10/529,264. Specifically, see above.

The U.S. Patent and Trademark Office normally will not institute an interference between applications or a patent and an application of common ownership (see MPEP Chapter 2300). Commonly assigned 10/529,264, discussed above, would form the basis for a rejection of the noted claims under 35 U.S.C. 103(a) if the commonly assigned case qualifies as prior art under 35 U.S.C. 102(e), (f) or (g) and the conflicting inventions were not commonly owned at the time the invention in this application was made. In order for the examiner to resolve this issue, the assignee can, under 35 U.S.C. 103(c) and 37 CFR 1.78(c), either show that the conflicting inventions were commonly owned at the time the invention in this application was made, or name the prior inventor of the conflicting subject matter.

A showing that the inventions were commonly owned at the time the invention in this application was made will preclude a rejection under 35 U.S.C. 103(a) based upon the commonly assigned case as a reference under 35 U.S.C. 102(f) or (g), or 35 U.S.C. 102(e) for applications pending on or after December 10, 2004.

U.S. Patent Application No. 10/529,218

Claims 77-164 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 80-165 of copending Application No. 10/529,218. Although the conflicting claims are not identical, they are not patentably distinct from each other because the scope of the '218 claims anticipates or renders obvious that of the instant claims. The difference between the two claim sets is that the '218 claims do not recite that the composition has a transfer index of less than or equal to 40 out of 100. Regarding this limitation, the transfer index

(i.e. transfer resistance) would be optimized by the skilled artisan. As taught by Anton, the "hard" portions of the polymers taught are responsible for shine of the polymer. Thus, it would be obvious to an ordinary artisan to optimize the gloss of the lipstick formulation. Since each application recites the same monomer components and architecture, in the absence of evidence to the contrary, it is reasonable that the compositions claimed in the instant application would meet the '218 limitation and vice versa. It is noted that '218 claim 97 recites the elected species of isobornyl (meth)acrylate, claim 108 encompasses the elected species of isobutyl acrylate, and claim 135 recites acrylic acid, the elected species for the additional monomer. Thus, the scope of the two claim sets is substantially identical, and the entire scope of the instant claims is rendered obvious over the '218 claims.

### ***Conclusion***

No claims are currently allowable.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin S. Orwig whose telephone number is (571)270-5869. The examiner can normally be reached Monday-Friday 7:00 am-4:00 pm (with alternate Fridays off). If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sharmila Landau can be reached Monday-Friday 8:00 am-5:00 pm at (571)272-0614. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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KSO

/David J Blanchard/  
Primary Examiner, Art Unit 1643